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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,222	06/21/2006	Masaaki Tabuchi	2005-1541A	4290
513 7590 08/12/2008 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021				
EXAMINER YEE, DEBORAH				
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
08/12/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/551,222

**Applicant(s)**

TABUCHI ET AL.

**Examiner**

Deborah Yee

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/US)
- Paper No(s)/Mail Date 9/27/05
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 to 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,415,706 ("SCARLIN").
3. SCARLIN in claims 1 and 5 discloses tempered martensitic steel alloy having a composition with constituents whose wt% ranges overlap those recited by claims 2 to 5; such overlap establishes a prima facie case of obviousness because the prior art teaches similar properties of heat and creep resistance. In addition, lines 13 to 22 of column 5 teach welding tempered martensitic heat resistant steel to form a welded joint with a heat affected zone. Even though SCARLIN does not teach heat affected zone of weldment having creep strength of at least 90% or more of the base metal as recited by claim 1, such would be expected since compositional limitations are closely met, and in absence of proof to the contrary.
4. Claims 1 to 5 rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,650,024 ("HASEGAWA") in view of US Patent 5,591,391 ("IGARASHI") or US Patent 5,415,706 ("SCARLIN").
5. HASEGAWA in claims 1 to 6 of columns 55-56 teaches tempered martensitic steel alloy having a composition with constituents whose wt% ranges overlap those

recited by claims 2 to 5; such overlap establishes a prima facie case of obviousness because the prior art teaches similar properties of heat and creep resistance. In addition, abstract teaches welding tempered martensitic heat resistant steel to form a welded joint with a heat affected zone having high creep strength at high temperature of at least 550°C.

6. Even though HASEGAWA does not teach steel containing 0.003 to 0.03% B as recited by claim 2, such would be an obvious additive. Note that it is well known in the art to add small amounts of B in analogous heat resistant steel alloys to further enhance hardenability and secure long term creep strength as evident by IGARASHI on lines 40 to 55 of column 8; and SCARLIN on lines 3 to 12 in column 5. Since hardenability and creep strength are desired and sought by HASEGAWA, then it would be an obvious modification well within the skill of the artisan in view of secondary teaching to incorporate small amounts of B to primary prior art steel alloy to produce no more than the known and expected effects from such an addition.

7. Even though HASEGAWA does not teach heat affected zone of weldment having creep strength of at least 90% or more of the base metal as recited by claim 1, such would be expected since compositional limitations are closely met, and in absence of proof to the contrary.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 to 5 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 2,586,042 ("HODGE").

10. HODGE discloses tempered martensitic steels A and B in the table of column 2 having compositions that meet claims 2 to 5, and are subjected to welding to form weldment with heat affected zone.

11. Even though HODGE does not teach heat affected zone of weldment having creep strength of at least 90% or more of the base metal as recited by claim 1, such would be expected since compositional limitations are met, and in absence of proof to the contrary.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on monday-friday 6:00 am-2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Deborah Yee/  
Primary Examiner  
Art Unit 1793

/DY/